Tuberculosis and You A Guide to Tuberculosis Treatment and Services

Tuberculosis (TB) is a serious disease that can damage the lungs or other parts of the body like the brain, kidneys or spine. There are medications to treat TB. TB can kill you if it is not treated.

Doctors have to report cases of TB to their local health department because it is such a serious disease and it is spread from person to person. The health department is required by law to follow up on these reports to help keep others from getting TB.

How TB Is Spread

TB is spread through the air when someone who is sick with TB disease of the lungs coughs, sneezes, sings or speaks. Others can become infected by breathing the germs into their lungs.

People who are infected with TB usually have had close contact with a person who is sick with TB disease. Family members, roommates, friends or close co-workers are more likely to become infected by someone with TB disease. This is because they spend long periods of time together in closed spaces like homes or offices.

TB is NOT spread by shaking hands, kissing, sex, sharing glasses, plates, utensils, clothing, sheets or furniture. TB cannot spread through the air outside.

Latent Tuberculosis Infection (LTBI)

Most people who become infected with TB do not get sick. Their bodies are able to fight the TB germs. This is known as latent tuberculosis infection or LTBI. People with LTBI do not feel sick and do not have symptoms of TB. They cannot spread TB to others.

TB Disease

A person can have LTBI for weeks, months, or years because their body fights the TB germs. If their body cannot fight the TB germs, they get TB disease. People with TB disease don't feel well and can spread TB to others.

How TB Is Diagnosed

A doctor uses your medical history and several tests to help diagnose TB disease. They are:

- the TB skin test,
- chest x-rays, and
- lab tests.

You will hear about the following lab tests during your diagnosis and treatment:

- A sputum smear. These tests are done on mucus coughed up from the lungs (sputum). If there are germs that look like TB in the mucus, they will show under a microscope. Sometimes the TB germs will not show up under a microscope but you can still have TB. That is why we also do a sputum culture. If the germs that grow on the culture are TB, you have TB disease. It can take up to two months to get the results of the sputum culture.
- **Drug Sensitivities.** Tests are also done to make sure the medicines used to treat TB will kill your TB germs. It takes another two weeks to get the results of the drug sensitivities. TB treatment is often started BEFORE getting these results.
- **HIV Test.** Everyone who has TB must be tested for HIV (Human Immunodeficiency Virus). HIV is spread by contact with infected blood or body fluids. This could be through sex, sharing needles, or from mother to child during birth or breastfeeding. HIV weakens the body making it hard to fight disease. A person can be infected with HIV and not know it. HIV infection can change the way TB is treated. That is why you must have an HIV test.

TB Treatment

Your TB drugs are free at the health department.

TB is curable with the right treatment. The drugs most often used to treat tuberculosis are:

- Isoniazid (INH)
- Rifampin (RIF)
- Ethambutol (EMB)
- Pyrazinamide (PZA)

All four drugs are given while waiting for the results of the sputum cultures and drug sensitivities. You may only need three drugs when we get the results of your drug sensitivities. After 8 weeks, you may only need 2 drugs.

Length of Treatment

It takes a long time to kill TB germs. TB medicine is taken for at least 6 months, sometimes longer. You will likely feel much better before then. Even when you feel better, it is important that you take your medicine as long as the doctor tells you. If you miss any of your medicine or stop taking it too soon:

- You may get sick again.
- You may infect others.
- It may be harder to treat your TB because the drugs will not work as well if they are not taken as your doctor ordered.

TB Medicines

TB Medicine and Your Other Medicines

Some medicines can affect or be affected by your TB medicine. Bring a list of everything you take (vitamins, herbs, prescriptions, and medicines you can buy without a prescription) when you visit a healthcare provider. Talk with the TB nurse or doctor before taking any new medicines.

TB Medicine and Alcohol

Protect your liver— **never drink alcohol** when you are taking TB medicine. Drinking alcohol while taking TB medicine can damage your liver.

Problems with TB Medicine

Most people take TB medicine with no problems. Sometimes the medicine used to treat TB can cause problems. Some of the problems are small; others are more serious. Women should not get pregnant while taking TB medicine.

What You Should Know about TB Medicine

- Rifampin can cause urine, tears, stool, and sweat to turn orange. It may cause staining of soft contact lenses.
- Rifampin and Pyrazinamide can cause the skin to be more sensitive to the sun. Use sunscreen and cover skin so you won't get sunburned.
- Birth control methods with hormones (pills, rings, implants, shots, etc.) don't work as well with rifampin. Use an extra method of birth control (condoms) so you will not get pregnant.
- Taking rifampin while taking methadone can cause withdrawal symptoms. Talk with the doctor who prescribed the methadone for you about adjusting your methadone.

Serious Medicine Problems

You should call the TB nurse right away if you have any of the following:

- Ongoing loss of appetite for no reason
- Always feeling tired or weak
- Nausea, vomiting, bloating or stomach pain for no reason
- Yellow skin or eyes
- Urine the color of tea or cola
- Fever
- Abdominal pain
- Tingling (like pins and needles) in fingers, toes
- Rash or itching of the skin
- Unusual bleeding or bruising
- Aching joints
- Dizziness or confusion
- Numbness around the mouth
- Blurred or changed vision
- Ringing in the ears or hearing loss
- Any other unusual symptoms

If you have any of these symptoms at night or on weekends, call your primary care provider or go to the emergency room. Take a list of all your medicines with you.

Important Phone Numbers

TB Nurse_____

Doctor____

Directly Observed Therapy

It is not easy to take medicine for a long time, especially when you start feeling better. Someone from the health department will watch you take your medicine. This is called Directly Observed Therapy (DOT) and it is the law in North Carolina. This helps you take your medicine the right way and for the right amount of time.

While on DOT:

- You will take your medicine daily for at least two (2) weeks.
- Your medicine may be changed to two (2) times a week after that depending on your situation.
- You can come to our clinic to take your medicine or the nurse can meet you at a place you choose (for example work, school, or home).
- The nurse will follow your progress closely.
- You will have support and the chance to ask questions.

Protecting Others from TB

You may have had active TB disease for a while before you were diagnosed. You will need to give your TB nurse some information about people you have had close contact with (family members, roommates, friends, close co-workers, etc.). It is very important that you tell us the names, addresses and phone numbers of your close contacts. It is the health department's job to let your contacts from school, church, work, etc. know if they need to be tested for TB. Your contacts will be told they may have been exposed to TB but they will not be told your name. The health department will make sure they get free TB medicine if they need it.

Protect Your Friends and Family

You can spread TB until you have had enough medicine to control your TB germs. The amount of time this takes is different for each person. Sputum smears tell the TB doctor if you can still spread TB. The TB nurse will collect two (2) sputum samples every two (2) weeks to see how your medicine is working. The time that it takes your sputum samples to change from positive to negative helps the doctor decide how long your treatment will be.

Home Isolation

Your doctor may put you on "home isolation." This happens when you are not sick enough to need hospital care but you are still able to spread TB to other people. Home isolation helps prevent the spread of TB because you stay home and away from other people.

How long will I need to be on home isolation?

Home isolation is different for each person. Home isolation may last days, weeks, or months. Taking every dose of your TB medicine kills the TB germs and can help shorten home isolation. That is why taking your medicine is so important! Your TB doctor or nurse will tell you when it is safe to go back to your normal routine.

What if I need to go somewhere?

You must stay at home unless you need medical care. You should put off all nonemergency appointments (like the dentist, the hairdresser, etc.) until you are no longer able to spread TB.

If you must go to the doctor, wear a mask and tell the doctor's office staff you have TB. If you have to be picked up by ambulance, tell the paramedics you have TB.

What do I have to do while on home isolation?

- You must *not* have visitors. Stay away from people who do not live with you. Babies, young children, and people with weak immune systems (cancer patients, people with HIV, people who have had an organ transplant) can catch TB very easily.
- You may be outside without a mask. Sunlight kills TB germs.
- You may not use taxis, buses, trains, or airplanes.
- You may not go to school, work, church, the store, or any other public place.
- Cover your mouth with a tissue when you cough or sneeze
- Sleep alone in a separate room.
- Air out the rooms you are staying in by opening the window (if the weather allows). You can also put a fan in the open window backwards so that the air is blown outside.
- Always wear a mask if you must be around other people.

Below is a list of things you can do to help keep your body working at its best.

- Eat healthy foods.
- Get plenty of rest.
- Exercise daily.
- DON'T DRINK ALCOHOL (beer, wine, or liquor).
- Don't use illegal (street) drugs.
- Wash your hands often.
- Stop smoking.
- Lose weight if you need to.
- Protect your skin from the sun.
- Practice safer sex.
- Stay up-to date on your vaccinations.
- Take medications as prescribed.
- Go to the doctor for check ups (including blood pressure, cholesterol, urine, blood sugar levels, STD/HIV tests, Pap smears, breast exams, prostate exams and other screening tests).

Medication Record

Name _____ MR# _____

Daily for 2 Weeks

Isoniazid _____mg

- Rifampin ____mg Pyrazinamide _____mg
- Ethambutol ____mg
- Date Started:
- Date Stopped: _____mg

followed by:

Twice Weekly for 6 Weeks

- Isoniazid _____mg
- Rifampin mg
- Pyrazinamide _____mg
- Ethambutol _____mg
- Date Started: _____
- Date Stopped: _____
- Vitamin B6 _____mg

followed by:

Twice Weekly for 18 Weeks

Isoniazid _____mg

- Rifampin _____mg

Date Started: ______ Date Stopped: ______

Vitamin B 6 _____mg

Bring this record with you to all of your medical appointments.